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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/764,198	01/23/2004	Ken Gary Pomaranski	200312917-1	8088

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EXAMINER	
LOHN, JOSHUA A	

ART UNIT	PAPER NUMBER
2114	

DATE MAILED: 06/29/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/764,198	POMARANSKI ET AL.	
	Examiner	Art Unit	
	Joshua A. Lohn	2114	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *25 April 2005*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-20* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-20* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *23 January 2004* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date *4/25/05, 1/23/04*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claims 9, 15, and 18-20 are rejected under 35 U.S.C. 102(e) as being anticipated by Scrandis et al., United States Patent number 6,694,455, filed July 27, 2000.

As per claim 9, Scrandis discloses a method of status reporting for a node of a cluster, the method comprising applying a set of rules to determine current multi-state status of the node (Scrandis, col. 19, lines 30-44, where the alarm correlation check is used as a set of rules to detect the alarm status), wherein states of the multi-state status includes a good state, a bad state, and at least one degraded state (Scrandis, col. 8, lines 32-36).

As per claim 15, Scrandis further discloses the method of claim 9, wherein the multi-state status of the node includes multiple levels of degradation (Scrandis, col. 8, lines 32-36, where the degraded and failed status values are the multiple levels of degradation).

As per claim 18, Scrandis discloses an apparatus for reporting status from a node of a cluster, the apparatus comprising: a processor for executing instructions (Scrandis, col. 7, lines

24-25); memory for holding data (Scrandis, col. 7, lines 59-60, where the storage ability indicates the memory for holding data); system interconnect to provide intercommunication between components of the apparatus (Scrandis, col. 7, lines 31-39); a software module that is configured to apply a set of rules to determine current multi-state status of the node (Scrandis, col. 19, lines 30-44); and signaling hardware configured to output the multi-state status of the node (Scrandis, col. 19, lines 40-44), wherein states of the multi-state status includes a good state, a bad state, and at least one degraded state (Scrandis, col. 8, lines 32-36).

As per claim 19, Scrandis further discloses the apparatus of claim 18, wherein the signaling hardware is further configured to receive as input the multi-state status from another node of the cluster (Scrandis, col. 7, lines 61-64).

As per claim 20, Scrandis further discloses the apparatus of claim 19, wherein the multi-state status includes multiple levels of degradation (Scrandis, col. 8, lines 32-36, where degraded and failed are the multiple levels of degradation).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims 1-7, 10-14, and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Scrandis in view of Jackson et al., United States Patent number 6,536,000, published March 18, 2003.

As per claim 1, Scrandis discloses a node system (Scrandis, col. 7, lines 25-30, where the network element processor is the node) of a high-availability cluster, the node system comprising: a means to store multi-state status data of the node (Scrandis, col. 7, lines 58-60, where the status information is stored); and an output port configured to send signals representing the multi-state status data of the node (Scrandis, col. 7, lines 59-61), wherein the multi-state status data of the node includes at least one degraded state (Scrandis, col. 8, lines 32-36). Scrandis fails to disclose the use of a first register in the storing of the status data.

Jackson discloses the use of a first register for storing status data (Jackson, col. 3, lines 23-44, where an error register is the first register).

It would have been obvious to one skilled in the art at the time of the invention to use the registers of Jackson in the invention of Scrandis.

This would have been obvious because the error registers of Jackson provide greater efficiencies to provide error information directly to the processes that need the information without the information first having to be processed by the operating system (Jackson, col. 3, liens 23-44). The registers of Jackson, provided for each processor (Jackson, col. 3, lines 23-44), would have provided the obvious benefit of improved efficiency in the multi processor cluster of Scrandis (Scrandis, col. 7, lines 57-67).

As per claim 2, Scrandis and Jackson further disclose the node system of claim 1, further comprising: an input port configured to receive signals representing multi-state status data of another node (Scrandis, col. 7, lines 62-64); a second register (Jackson, col. 3, lines 23-44, where there is an error register to correspond to each other processor) configured to store the multi-state

status data from the other node (Scrandis, col. 7, lines 62-64), wherein the multi-state status data of the other node includes at least one degraded state (Scrandis, col. 8, lines 32-36).

As per claim 3, Scrandis and Jackson further disclose the node system of claim 2, wherein the multi-state status data of the other node further includes a no signal state (Scrandis, col. 7, lines 64-67, where when only identification information is being exchanged it includes no operating status signal state).

As per claim 4, Scrandis and Jackson further disclose the node system of claim 1, wherein the multi-state status data of the node includes multiple levels of degradation (Scrandis, col. 8, lines 32-36, where the degraded and failed states are the multiple levels of degradation).

As per claim 5, Scrandis and Jackson further disclose the node system of claim 3, wherein the multi-state status data of the other node includes multiple levels of degradation (Scrandis, col. 8, lines 32-36, where the degraded and failed states are the multiple levels of degradation).

As per claim 6, Scrandis and Jackson further disclose the node system of claim 2, wherein the input and output ports each couple to a point-to-point communication path for communicating the status data between nodes of the cluster (Scrandis, col. 7, lines 31-38).

As per claim 7, Scrandis and Jackson further disclose the node system of 1, further comprising a rule file and an operating system, wherein the operating system applies rules from the rule file to determine the multi-state status of the node (Scrandis, col. 19, lines 30-44, where the correlation check is the rule file used to detect the alarm status of the node).

As per claim 10, Scrandis discloses the writing of multi-state status information to the node (Scrandis, col. 7, lines 58-60). Scrandis however fails to disclose that the writing is directed to a register. Jackson discloses the use of the register (Jackson, col. 3, lines 23-44). For the same reasons as those mentioned above in the rejection of claim 1, it would have been obvious to combine the registers of Jackson in the invention of Scrandis.

As per claim 11, Scrandis and Jackson further disclose the method of claim 10, further comprising: driving the multi-state status (Scrandis, col. 7, lines 59-61) from the first register (Jackson, col. 3, lines 23-44) to a next node via a point-to-point communications path (Scrandis, col. 7, lines 30-37, where the service channel is the point-to-point communication path).

As per claim 12, Scrandis and Jackson further disclose the method of claim 11, further comprising: receiving multi-state status from another node; and writing the multi-state status from the other node (Scrandis, col. 7, lines 62-65) to a second register (Jackson, col. 3, lines 23-44, where there is an error register to correspond to each other processor).

As per claim 13, Scrandis and Jackson further disclose the method of claim 12, further comprising: reading the statuses from the first and second registers; and taking action to maintain high availability of the cluster based on the statuses read (Scrandis, col. 19, lines 30-44, where all the status information is compared to determine if the high availability alarm action needs to be taken).

As per claim 14, Scrandis and Jackson further disclose the method of claim 11, wherein the status writable into the second register includes a no signal state (Scrandis, col. 7, lines 64-67, where if only identification information is sent, no status signal state is registered).

As per claim 16, Scrandis and Jackson further disclose the method of claim 12, wherein the multi-state status from the other node includes multiple levels of degradation (Scrandis, col. 8, liens 32-36, where the degraded and failed states are the multiple levels of degradation).

Claim 8 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scrandis in view of Jackson in further view of Liang, United States Patent number 6,738,811, filed March 31, 2000.

As per claim 8, Scrandis and Jackson disclose using rules to determine the system state (Scrandis, col. 19, lines 30-44, where the correlation check is the rule file used to detect the alarm status of the node). Scrandis and Jackson fail to disclose that the system includes a rule such that receipt of a critical chassis code results in a bad state and another rule such that receipt of a chassis code below critical results in a degraded state.

Liang discloses a rule such that the receipt of a critical chassis code results in a bad state and another rule such that receipt of a chassis code below a critical results in degraded state (Liang, col. 8, lines 32-48) where the bad state is the state when a rise in temperature is abnormal and where the degraded state is the state when historical data suggests that the current temperature will soon lead to a failure).

It would have been obvious to one skilled in the art at the time of the invention to include the degraded and bad state designations of Liang in the invention of Scrandis and Jackson.

This would have been obvious because Scrandis discloses a desire to have the ability to differentiate between bad and degraded states for monitoring, without specifying a substantial mechanism for this (Scrandis, col. 8, lines 32-40). This desire is satisfied by the mechanism of

Liang, which provides a mechanism for differentiating between bad states and degraded states (Liang, col. 8, lines 31-48).

Claim 17 is rejected under 35 U.S.C. 103(a) as being unpatentable over Scrandis in view of Liang.

As per claim 17, Scrandis discloses using rules to determine the system state (Scrandis, col. 19, lines 30-44, where the correlation check is the rule file used to detect the alarm status of the node). Scrandis fails to disclose that the system includes a rule such that receipt of a critical chassis code results in a bad state and another rule such that receipt of a chassis code below critical results in a degraded state.

Liang discloses a rule such that the receipt of a critical chassis code results in a bad state and another rule such that receipt of a chassis code below a critical results in degraded state (Liang, col. 8, lines 32-48) where the bad state is the state when a rise in temperature is abnormal and where the degraded state is the state when historical data suggests that the current temperature will soon lead to a failure).

It would have been obvious to one skilled in the art at the time of the invention to include the degraded and bad state designations of Liang in the invention of Scrandis.

This would have been obvious because Scrandis discloses a desire to have the ability to differentiate between bad and degraded states for monitoring, without specifying a substantial mechanism for this (Scrandis, col. 8, lines 32-40). This desire is satisfied by the mechanism of Liang, which provides a mechanism for differentiating between bad states and degraded states (Liang, col. 8, lines 31-48).

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure is provided on form PTO-892.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Joshua A. Lohn whose telephone number is (571) 272-3661. The examiner can normally be reached on M-F 8-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Scott Baderman can be reached on (571) 272-3644. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Bryce P. Bonzo

JAL

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PRIMARY EXAMINER